

AMENDMENTS TO THE CLAIMS:

Please amend claim 6 as set forth below.

This listing of claims will replace all prior versions and listings of claims in the Application:

Claims 1-5 (canceled)

Claim 6 (currently amended): A method for depositing a nitride film by chemical vapor deposition using a chemical vapor deposition apparatus of single chamber type having a process chamber comprising a inlet gas line through which process gases are introduced; a shower head for spraying the introduced process gases; a heater on which a wafer is placed; and a vacuum port for discharging the process gases, the method includingcomprising the steps in sequence of:

a first step of depositing a first nitride film on the lower, side and upper regions of a patterned trench formed on a wafer by performing a first nitride film deposition process using a process gas at a first mixture ratio of ammonia (NH₃) gas and silane (SiH₄) gas, in the range of 100:1 or more; and, without breaking vacuum,

a second step of depositing a second nitride film on a surface of the first nitride film in-situ by maintaining a process gas at a second mixture ratio of ammonia gas and silane gas different from the first mixture ratio and in the range of 100:1 or less in order to secondly deposit the nitride film, after depositing the first nitride film, whereby whereupon the first and second nitride film is films deposited [[at]]together have a greater thickness at the upper region as compared to the side regions and the lower region thereof.

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Claim 7 (previously presented): The method as set forth in claim 6, wherein the ammonia gas is introduced into the process chamber at a flow rate of between about 50 and 10000 SCCM, and the silane gas is introduced into the process chamber at a flow rate of between about 2 and 40 SCCM.

Claim 8 (previously presented): The method as set forth in claim 6, wherein a pressure in the chamber is maintained in a range between 10 and 350 torr, and a temperature in the chamber is maintained in a range between 600 and 800°C.

Claim 9 (previously presented): The method as set forth in claim 6, including the step of introducing an inert gas into the process chamber at a flow rate between about 100 and 10000 SCCM to dilute the silane and ammonia gases.

Claim 10 (previously presented): The method as set forth in claim 9, wherein the inert gas comprises nitrogen (N₂) gas.

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